L 44369-66 EWT(m)/EWP(j)/T IJP(c) RM/WW SOURCE CODE: UR/0191/66/000/004/0022/0023 ACC NR: AP6023061 (A) SOURCE CODE: UR/0191/66/000/004/0022/0023 AUTHOR: Renard, T. L.; Korshak, V. V.; Kamenskiy, I. V.; Tseytlin, G. M.; Belova, M. P.; Kafanova, V. F.; Avtokratova, N. D.
ORG: none TITLE: Polytetramethylolcyclopentanonmaleinate and glass-textolite based on it
SOURCE: Plasticheskiye massy, no. 4, 1966, 22-23 TOPIC TAGS: glass textolite, polyester plastic, maleic anhydride, ketone, IR spectrum ABSTRACT: Thermomechanical properties of unsaturated polyester oligomers (UPO) prepared by fusing 2,2,5,5-tetra(oxymethyl)-cyclopentanon with maleic anhydride were studed. The fusion was carried out at 150°C in an inert gas and the liberated water was ied. The fusion was carried out at 150°C in an inert gas and the liberated water was continually removed from the reaction zone. The physicomechanical properties of glass continually removed from the reaction zone. The physicomechanical properties of glass continually removed from the reaction zone and UPO were examined and tabulattextolites based on several commercial glass cloths and UPO were examined and tabulattextolites based on several commercial glass cloths and UPO were examined and tabulattextolites based on several commercial glass cloths and UPO were examined and tabulattextolites based on several commercial glass cloths and UPO were examined and tabulattextolites based on several commercial glass cloths and UPO were examined and tabulattextolites based on several commercial glass cloths and UPO were examined and tabulattextolites based on several commercial glass cloths and UPO were examined and tabulattextolites based on several commercial glass cloths and UPO were examined and tabulattextolites based on several commercial glass cloths and UPO were examined and tabulattextolites based on several commercial glass cloths and UPO were examined and tabulattextolites based on several commercial glass cloths and UPO were examined and tabulattextolites based on several commercial glass cloths and UPO were examined and tabulattextolites based on several commercial glass cloths and UPO were examined and tabulattextolites based on several commercial glass cloths and UPO were examined and tabulattextolites based on several commercial glass cloths and UPO were examined and tabulattextolites based on several commercial glass clot
plete hardening was achieved in 30 minutes. The structure of the unouter plete hardening was achieved in 30 minutes. The structure of the unouter the unouter plete hardening was achieved in 30 minutes. The structure of the unouter construction of the unouter plete hardening was achieved in 30 minutes. The structure of the unouter construction of the unouter constr

ENT(m)/EPF(c)/EPR/ENP(j)/T/ENA(c) Pc=4/Pr=4/Ps=4RPL L 53740 53 64/7/8M UR/0286/65/000/009/0066/0067 ACCESSION NR: AP5015287 678.634/.639.002.2 AUTHOR: Korshak, V. V.; Tseytlin, G. M.; Pavlov, A. I.; Izyneyev, A. A. TITLE: Preparative method for heat-resistant polymers. Class 39, No. 170659 SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 9, 1965, 66-67 TOPIC TAGS: polybenzoxazole, heat resistant polymer, preparation ABSTRACT: An Author Certificate has been issued for a preparative method for heat-resistant polymers (polybenzoxazoles) involving the polycondensation of aromatic dicarboxylic acids for esters thereof) with aromatic amines. To produce heat-resistant and soluble polybenzoxazoles, the aromatic amine to be used is bis(3-amino-4-hydroxyphenyl)propane or bis(3-amino-4-hydroxy-5-methylphenyl/propane. ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut im. Mendeleyeva (Moscow Chemical Engineering Institute) SUB CODE: OC, CC ENCL: 00 ATD PRESS: 4019 SUBMITTED: 27Apr64 OTHER: 000 NO REF SOV: 000 Card 1/1

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757020005-4"

THE STATE OF THE PROPERTY OF T

TSEYTLIN, Grigoriy Yul'yevich; ROYTBERG, Fetr Arkad'yevich; MOSHAROVA, T.F., red.

[Planned preventive repairs of hydraulic structures of harbors] Flanovo-predup editel nye r monty portovykl gid-rotekhnichoskikh sooruzhenii. Moskva, Transport, 1964.

(MIRA 17:9)

39636 \$/191/62/000/008/002/013 B124/B138

15.8090

AUTHORS:

Kamenskiy, I. V., Tseytlin, C. M.

TITLE:

Polymer materials based on condensation products of aldehydes with alicyclic ketones. Synthesis and investigation of cyclopentanone formaldehyde resins

PERIODICAL:

Plasticheskiye massy, no. 8, 1962, 12-14

TEMM: Polycondensation of cyclopentanone (C) with formaldehyde (F) was conducted in aqueous-alcoholic solution with soda as catalyst. The highest yields of polycondensate (119% by weight of the used C) were obtained with F:C = 1:1.5. Table 2 shows the properties of the products obtained with F:C = 1:1.5 and this process is made faster by basic excess F are thermo-setting and this process is made faster by basic catalysts. The products have high heat resistance (about 300°C), they are water-resistant and chemically very stable. The resins synthesized from mixtures with excessive C are thermoplastic but can also be set by adding basic catalysts. There are 2 figures and 2 tables. The English-language reference is: US Patent 1985870.

· Card 1/3

S/191/62/000/008/002/013
Polymer materials based on ... B124/3138

Table 2. Properties of cyclopentanone formaldehyde resins.

Legend: (A) Property, (B) resin obtained with a C-F ratio of, (C) appearance and color, (D) molecular weight, (E) CH groups, %, (F) elementary composition, %, (G) carbon, (H) hydrogen, (J) drop point, °C, (K) setting time on plate at 200°C, min, (L) of pure resin, (H) resin with 1% NaCH, (N) solubility: soluble in, (P) insoluble in, (R) vitreous, brittle, red-brown product, (S) maximum 95°C, (T) not thermosetting, (U) water-benzene mixture (20:8C), acetic acid, (V) chlorinated hydrocarbons, dioxane, ethers, ketones, (W) white powders whose aqueous-alcoholic solutions give colorless films after drying on glass, the films turning yellow above 140°C, (X) softens without melting, (Y) ethyl- and butyl alcohol, acetone, (Z) chlorinated hydrocarbons, ethers (petroleum and sulfuric ether), dioxane, aromatic hydrocarbons (benzene, toluene, chlorobenzene, etc.).

Card 2/3

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	Polymer	r mater	ials i	based P	on .	. Вр	<u>;</u> =:€	. <u>છ</u>	ი ჯ ა	S/191/ B124/3	62/0 138	00/008/002/ (A)	/c13
		(?)	CH (N)	о Смолы с 1% о NaOH (%) аРастворимость:	мин (к) чистой смо- лы (к)	каплепадення °C (!) Время отверждення на плит	углерод) водород ипература	групп, % (Ё) . Элементарный состав. % (F)	(У) Молеку:приый вес Солержание О!	нешній мід окраска		(Д) Показасели	
		В хлорированных углеводородах, диоксане, эфи-	່ 🚡	,~o~	T) If otherwares	(5) . He forme 95°C	73,48 8,52	F) 0,19	188	кСтеклообразный , хрупкий, краспо- коричненый про- лукт (R)	2:1	(2)	
			з этиловом и синртах, ди	16,5	6	Размигчает. ся. не пла-	69,19 8,33	8.21	Solution input Tolume 140°C	Белые по вые рас будучи стехло, дают	=======================================	Смола, получеточт при моляриом соотностими циклос	>
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KAMENS	Polymeric materials base aldehydes with alicyclic formaldehyde resins.	last.massy no.5:19-23	(MIRA 16:6)	293
	(Resins, Synthetic)	(Cyclopentanone)	(Formaldehyde)	
·				

I. 12966-63 EWP(j)/EPF(c)/EWT(m)/BDS

AFFTC/ASD Pc-4/Pr-4 RM/

ACCESSION NR: AP3000397

S/0191/63/000/005/0019/0023

AUTHOR: Kamenskiy, I. V.; Tseytlin, G. M.

67

TITLE: Polymer materials based on the products of condensation of aldehydes with alicyclic ketones. Concerning the structure of cyclopentanone-formaldehyde resins

SOURCE: Plasticheskiye massy*, no. 5, 1963, 19-23

TOPIC TAGS: aldehydes, alicyclic ketones, cyclopentanone-formaldehyde resins, polymers

ABSTRACT: In view of the lack of data in the literature on the chemical steps involved in obtaining cyclopentanone-formaldehyde resins, the authors studied the resin-yielding reactions occurring with an excess of cyclopentanone (thermoplastics) and of formaldehyde (thermosets). They have described the procedures used and the properties of the resins obtained in an earlier publication (Plasticheskiye massy*, no. 8, 1962). After fractional precipitation of the products with water from 10% acetone solution, the empirical formulas, molecular weight, and hydroxyl group content of the fractions were determined and their infrared spectra compared. The results indicated that the intermediate products formed in the process of cyclopentanone formaldehyde resin production with excess formaldehyde have the following structure: 2,5-dihydroxymethyl-2,5-di-(2'-cyclopentanonylmethyl)-cyclo-Card 1/2

L 12966-63	en e	
ACCESSION NR: AP3000397		V
intermediate products have nonylmethyl)-cyclopentanone results from further polyco structure of cyclopentanone temperature resin formation	eaction is carried out with excess the probable structure: 2,2,5,5- . It is hypothesized that increased andensation of these compounds. The formaldehyde resins is ascribed of the polymer's hydroxyl and can the melted and soluble resin stages.	tetra-(2'-cyclopenta- sed molecular weight he three-dimensional to the role in high- roonyl groups, the
ASSOCIATION; none		
SUEMITTED: 00	DATE ACQ: 10Jun63	ENCL: 00
SUB CODE: MA	NO REF SOV: 002	OTHER: OOL

ZASIAVSKIY, I.D.; TSEYTIN, C.S.

Singular coverings and the related properties of recursive functions. Trudy Mat.inst. 67s458-502 °62. (MRA'16s2) (Functions) (Mathematical analysis)

SHIKHIYEV, Fuad Maksimovich; YEROFHYEV, Nikolay Ivanovich; GINSBARG, Ruvim Izrailevich; TSEYTLIN, Grigoriy Yul'yevich; OBERMEYSTER, A.M., red.; MARCHUKOVA, M.G., red. izd-va; TIKHONOVA, Ye.A., tekhn. red.

[Organization and equipment of sea ports] Ustroistvo i oborudovanie morskikh portov. Moskva, Izd-vo "Morskoi transport," 1960. 413 p. (MIRA 14:5)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757020005-4"

TSEYTLIN, Grigoriy Yul'yevich; ROYTBERG, Petr Arkad'yevich; MOSHAROVA, T.P., red.

[Routine maintenance of the hydraulic structures of harbors] Planovopredupreditel nyi remont portovykh gidrotekhnicheskikh sooruzhenii. Moskva, Transport, 1964. (MIRA 18:2)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757020005-4"

TSEYTHIN, Grigoriy Yul'yevich

SHIKHIYEV, Fuad Maksimovich, kandidat tekhnicheskikh nauk; GRDELLI, Mikhail

Arkad'yevich, inzhener; MEKTILIM, Gaigarig Yul'yevich, inzhener;

PLAKIDA, M.E., redsktor; SAFONOV, P.V., redsktor izdatel'stva;

TIKHONOVA, Ye.A., tekhnicheskiy redaktor

[Experience in building hydraulic structures] Opyt stroitel'stva

gidrotekhnicheskikh sooruzhenii. Moskva, Izd-vo "Morskoi transport,"

(MIRA 10:9)

(Hydraulic engineering)

TSEYTIIN, I. I.

Technology

Duplicate-metalcutting machines, Moskva, Mashgiz, 1951.

Monthly List of Mussian Accessions, Library of Congress, December 1952. UNCLASSIFIED.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757020005-4"

TSEYTLIN, G.Yu.; BUDRIK, V.I.

Experience in building precast wharves. Transp.stroi. 9 no.2:

(MIRA 12:5)

1. Glavnyy inzhener glavstroyotryada No.2 tresta Chernomorgidrostroy

(for TSeytlin). 2. Nachal'nik Chernomorskoy normativno-issledovatel'
skoy stantsii (for Budrik).

(Wharves)

(Precast concrete construction)

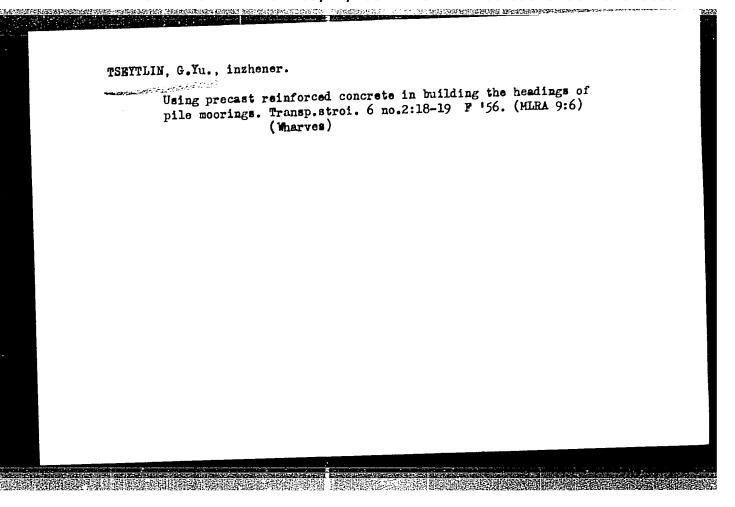
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SHIKHIYEV, F.M., kand. tekhn. nauk; TSEYTLIN, G.Yu., inzh.

Using precast elements in constructing wharves. How. tekh. mont. i
spets. rab, v stroi. 21 no.2:22-24 F '59.

(Precast concrete construction) (Wharves)

(Precast concrete construction)



IOPATUKHINA, A., inzh.; TSEYTLIN, I., inzh.; LISNYAK, T., inzh. (Moskva)

New method of lacquering. Prom. koop. 13 no.4:13 Ap '59.

(Metals--Finishing)

(Metals--Finishing)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757020005-4"

Basic problems in the care of children of preschool and school age. Pediatriia 37 no.6:3-10 Je '59. (MIRA 12:9)

(SCHOOL HEALTH,

in Russia, 7-year-plan (Rus))

(CHILD WELFARZ,

same)

SOV/122-59-5-12/32

AUTHOR:

Tseytlin, I.Kh., Engineer

TITLE:

Nomographic Calculation of Strength of Shafts (Nomograficheskiy raschet valov na prochnost!)

PERIODICAL: Vestnik mashinostroyeniya, 1959, Nr 5, pp 38-41 (USSR)

ABSTRACT:

Card 1/2

One nomogram (Fig 1) and a Table yield the equivalent diameter for a hollow shaft and a shaft splined by GOST 1139-58 respectively. Another nomogram (Fig 2) yields the tension or shear stress from the equivalent diameter and the bending moment or torque. The third nomogram (Fig 3) yields the safety factor for combined stress from the tensile and shear safety factors. The fourth nomogram (Fig 4) yields the "equivalence factor", computed by the cumulative damage theory, from the load programme. With the help of this factor, two other nomograms (Figures 5 and 6) yield the effective tension or shear stress, respectively. These take into account the endurance strength, the type of machining, the size factor and other points. A stress concentration scale is included. Another nomogram (Fig 7) yields the mean

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757020005-4"

stresses due to flexure or torsion. The fatigue

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Nomographic Calculation of Strength of Shafts

safety factor is found by returning to the nomogram of Fig 3. A numerical example is given. There are 8 figures, 1 table and 2 Soviet references.

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757020005-4"

SHIRINOV, Sh.G.; TSEYTLIN, I.M.; BAGDASAROVA, E.V.

Relationship between oil recovery and density of well spacing.
Azerb.neft.khoz. 41 no.3:8-10 Mr 162. (MIRA 15:8)
(Apsheron Peninsula—Oil fields—Production methods)

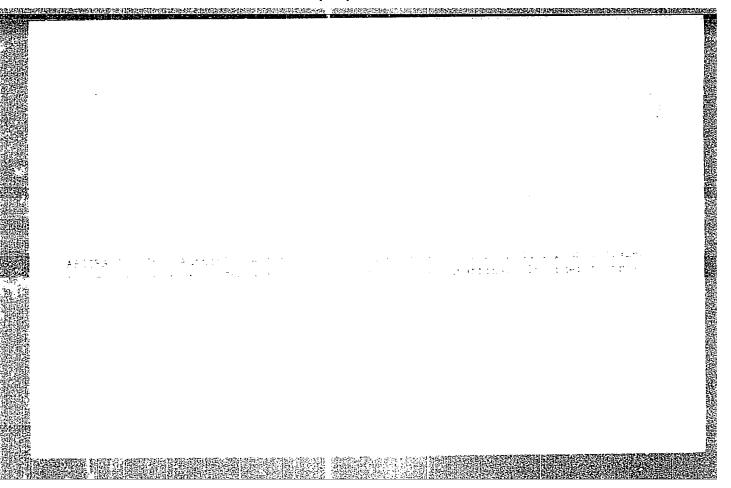
BORODYANSKIY, E.A.; TSEYTLIN, I.M.; KHINICH, R.Z.

Modernization of the RS-2 rubber mixer. Kauch.i rex. 20 no.3:38-39 Mr 161. (MIRA 14:3)

1. Nauchno-issledovatel'skiy konstruktorsko-tekhnologicheskiy institut shinnoy promyshlennosti i Omskiy shinnoy zavod.

(Rubber machinery)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757020005-4"



Radio emission temperature of the Moon and Jupiter at the 70.16 cm. wave length. Astron.zhur. 41 nc.5:951-954 S-0 164.

1. Nauchno-issledovatel skiy radiofizicheskiy institut pri Gor-kovskom gosudarstvennom universitete. (MIRA 17:10)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757020005-4"

· .	L 46020-66 EWI(m)/EWP(j) IJF(c) RM ACC NRi AP6021343 (A) SOURCE CODE: UR/0318/66/000/002/0025/0027
	AUTHOR: Shevlyakov, V. A.; Tseytlin, I. M.; Ryabova, A. L.
	ORG: Omsk Petroleum Refinery (Omskiy neftepererabatyvayushchiy zavod); Omsk Tire Factory (Omskiy shinnyy zavod)
	TITLE: Use of petrolatum for protection of rubbers from atmospheric aging "
	SOURCE: Neftepererabotka i neftekhimiya, no. 2, 1966, 25-27
	TOPIC TAGS: petroleum product, antioxidant additive, rubber chemical
3	ABSTRACT: Tests were performed to determine the protective properties of petrolatum obtained from a deparaffination unit. The data showed that petrolatum from Tuymazy Devonian petroleum increases the resistance of rubber to atmospheric aging, surpassing paraffin and Superlavox in protective properties and equalling Antilux in tests in vulcanizates prepared without using chemical antiozonants. Tests of protective waxes together with chemical antizonomants in tread rubbers based on butadiene-styrene rubber showed that in this case as well, the protective properties of petrolatum are higher than those of imported antiaging agents. The petrolatum studied can be suc-
	cessfully used as a physical antiaging agent in the production of tires and mechanical rubber goods. At the present time, this petrolatum is used under the name of "Anti-
	aging agent OM-1" in the tire industry, mechanical rubber goods industry, rubber foot-
	, K
	Cord 1/2 UDC: 665.637.73-4:678.06

	s: 6 tables.	,
SUB CODE: 11/ SUBM DATE:	none/ ORIG REF: 004	
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S/:25/60/000/010/011/015 A161/A133

AUTHORS: Konyushenko, A.T., Golovkin, R.V., Tseytlin. Kh.A., Strunkin, V.A.

TITLE: Resistance of Welded Titanium Pipes in Hydrochloric Acid Saturated with Chlorine

PERIODICAL: Avtomaticheskaya svarka, 1960, No. 10, pp.67-71

TEXT: The fabrication of titanium tubes by pressing is connected with high metal waste and tool consumption. In view of this fact and of the growing demand of the chemical industry in titanium pipes, the Moskovskiy trubnyy demand of the chemical industry in titanium pipes, the Moskovskiy trubnyy around (Moscow Tube Plant) has carried out tests in 1958 to fabricate these tubes by welding, and a technology has been developed for the welding of tubes of 12, 16, 25, 38 and 76 mm in diameter and 1-2 mm wall from DT1 (VT1) titanium. High-grade argon was used for shielding in the way described in a work that will soon be published (Ref.1) and which concerns the welding of tentalum. It is known from another work (Ref.2) that titanium is resistant to HCl solutions being continually saturated with chlorine, but no information could be a and in literature (Ref.3-6) on the behaviour of titanium Card 1/5

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757020005-4"

S/125/60/000/010/011/015 A:61/A133

Resistance of Welded Titanium Pipes in Hydrochloric Acid Saturated with Chlorine

welds. VT1 titanium tubes of 25 mm diameter and 1.5 mm warr were welded with 160 amp, 12 volt current and 0.6 m/min welding speed, using 4 mm diameter electrodes and a 12 mm diameter nozzle, while the argon consumption was 9 liter/min on the arc and 6 liter/min in the blast. The test specimens were rings cut from the tubes and placed into glass test tubes on glass hooks. Chlorine was blown continually through the test solution (water solution). A test lasted 200 hours. The resistance of the metal was measured by the loss of weight, mechanical properties and microstructure. A corrosion rate of only 0.01 mm per year was found in a 5% HCl solution at 90°C, and 0.1 mm per year in a 20% solution at 60°C. The resistance in fumes was several times higher. The corrosion rate remained practically constant. The microstructure of all specimens was: cast metal of coarse-acicular shape in the weld zone, and fine spherical grain shape with twins in base metal (Fig. 2,3). The test results prove the applicability of welded VT1 titanium equipment or tubes in HCl being continually saturated with chlorine; a 5% HCl concentration is permissible for work in temperature not higher than 90°C, and a 20% Card 2/5

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757020005-4"

S/125/60/000/010/011/015 A161/A133

Resistance of Welded Titanium Pipes in Hydrochloric Acid Saturated with Chlorine

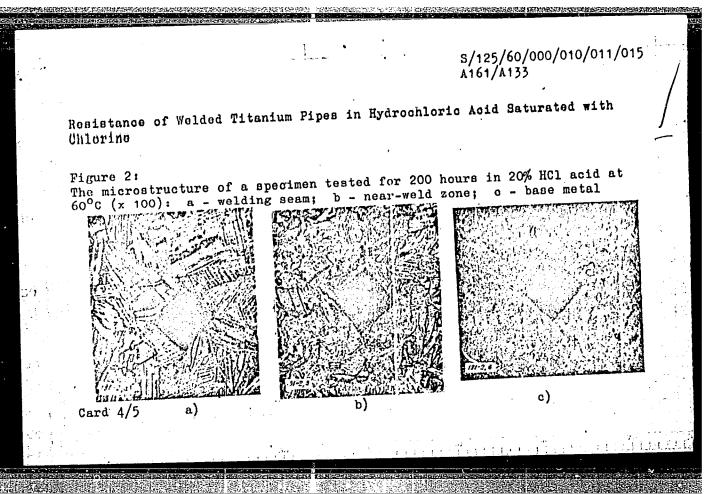
concentration at temperature of not higher than 60°C. The free chlorine content must be about 0.2 g in 100 cm². There are 3 figures and 6 references: 4 Soviet-bloc and 2 non-Soviet-bloc.

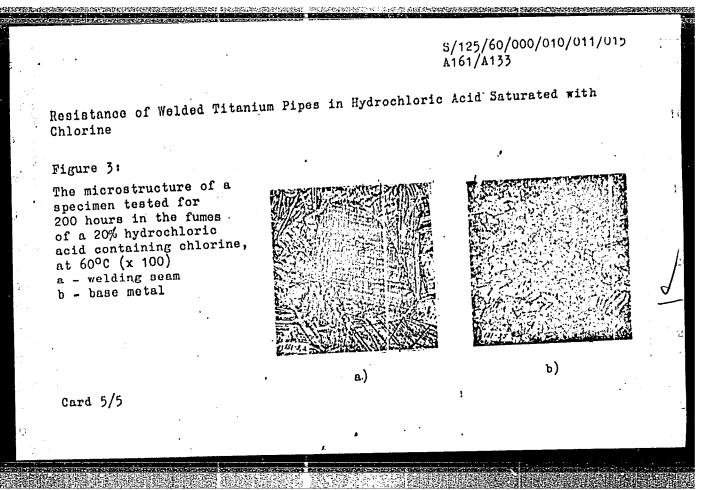
ASSOCIATION: Moskovskiy trubnyy zavod (Moscow Tube Plant) (A.T. Konyushenko and R.V. Golovkin); NIOPiK im. Voroshilova (NIOPandK im. Voroshilov) (Kh.A. Tseytlin, V.A. Strunkin)

SUBMITTED: March, 14, 1960

Card 3/5

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757020005-4"



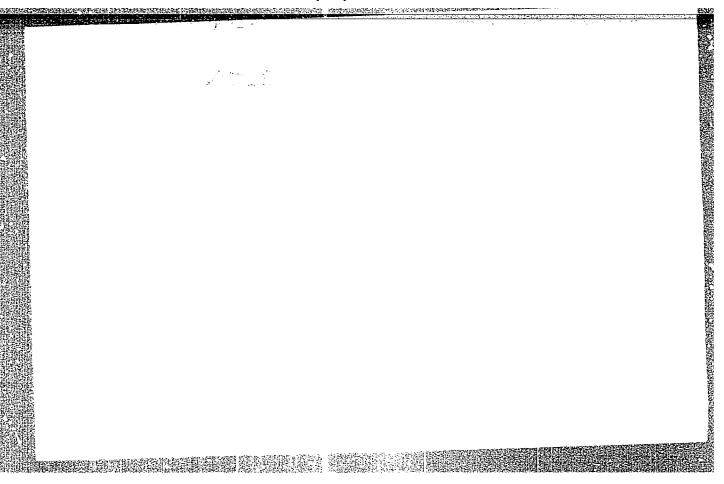


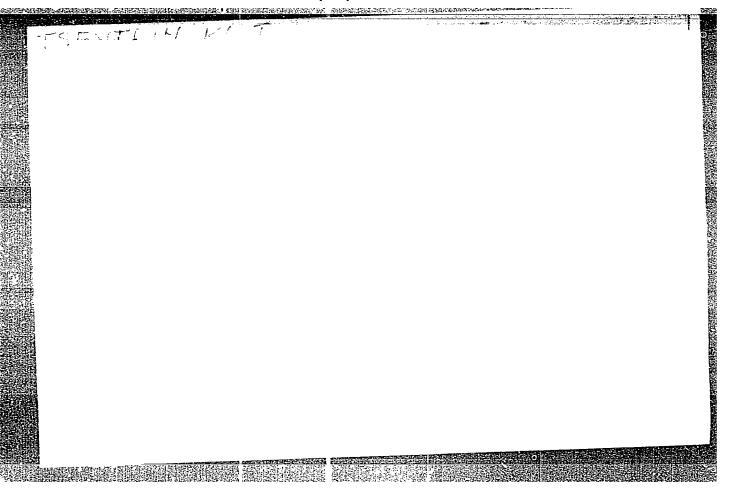
KONYUSHENKO, A.T.; GOLOVKIN, R.V.; TSEYTLIN, Kh.A.; STRUNKIN, V.A.

Stability of welded titanium pipes in chlorine-saturated hydrochloric acid. Avtom. svar. 13 no. 10:67-71 0 '60. (MIRA 13:10)

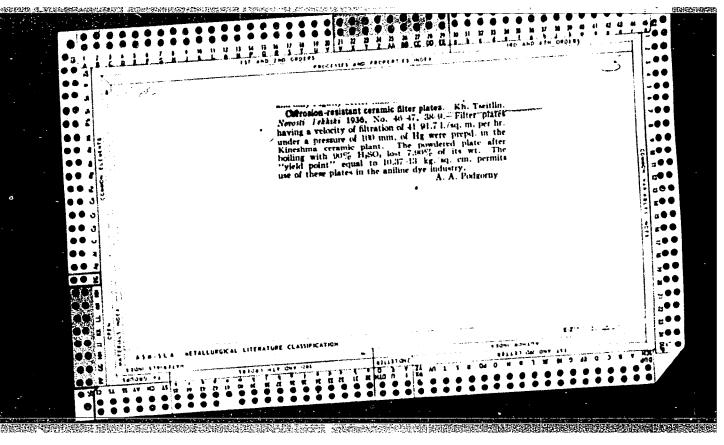
1. Moskovskiy trubnyy zavod (for Konyushenko, Golovkin).
2. Nauchno-issledovatel'skiy institut organicheskikh
poluproduktov i krasiteley im. K. Voroshilova (for TSeytilin,
Strunkin).

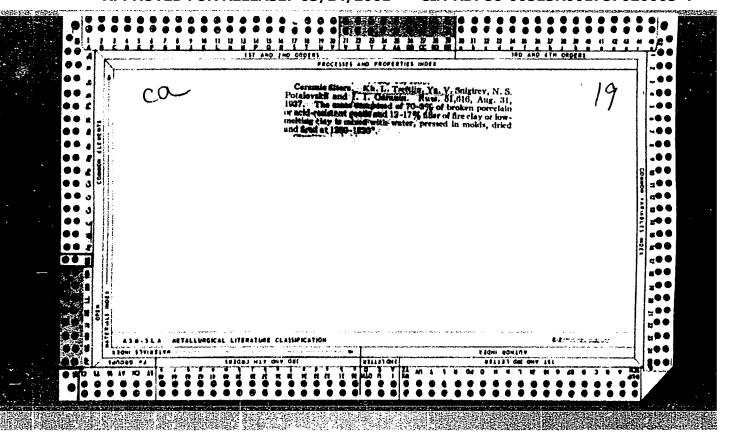
(Titanium--Welding) (Hydrochloric acid)

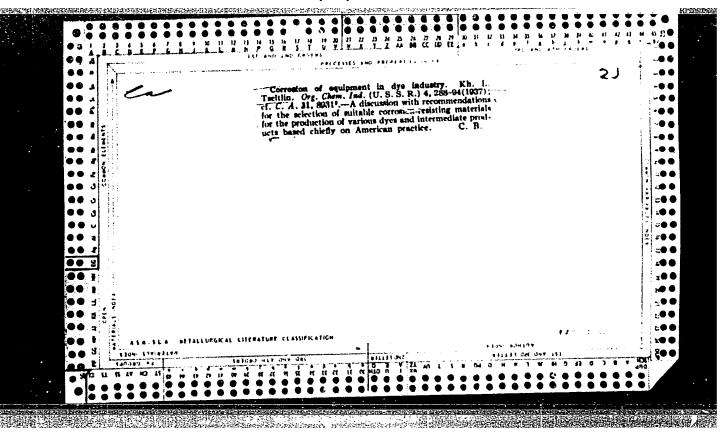


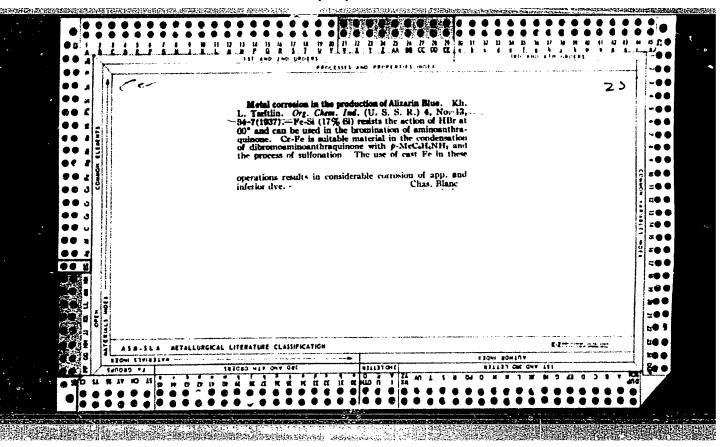


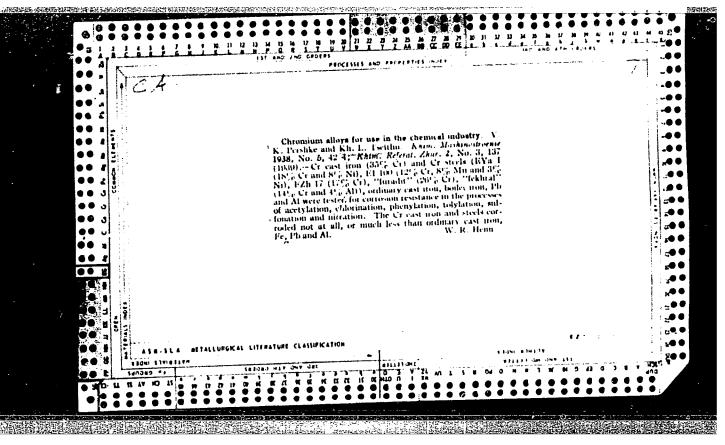
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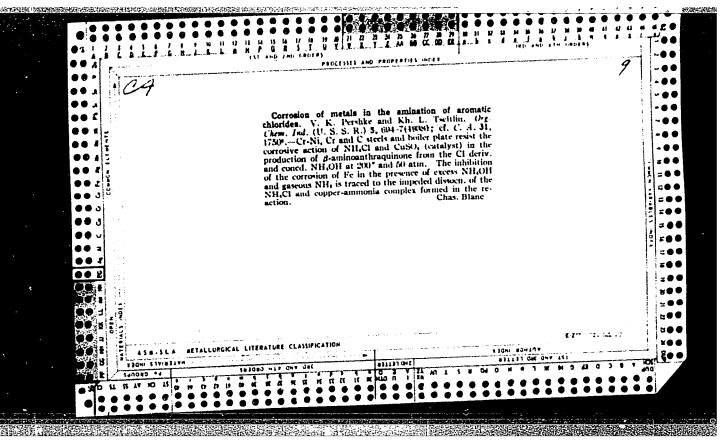


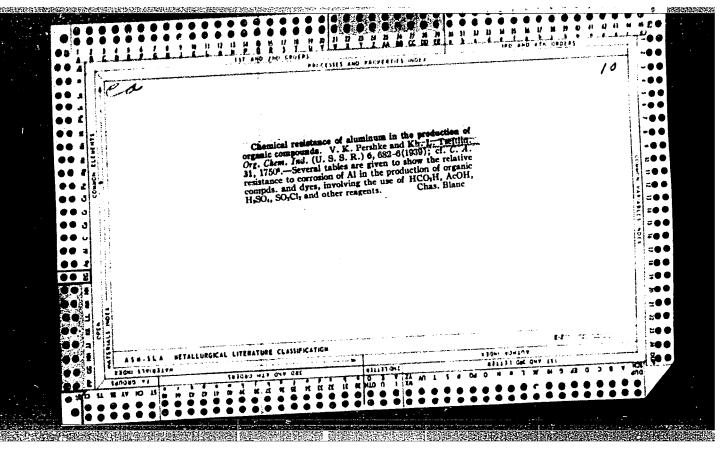


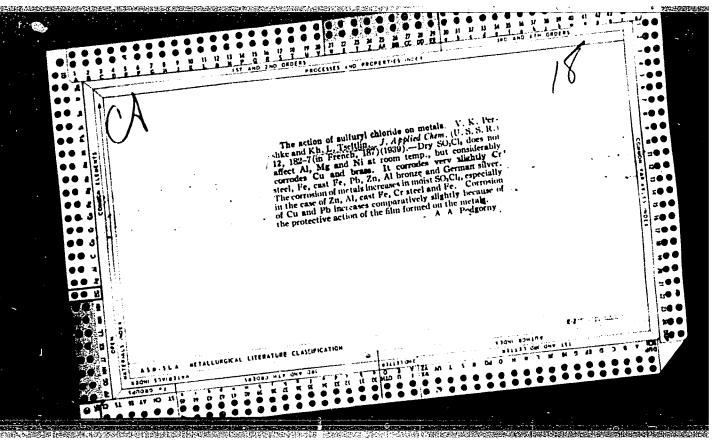


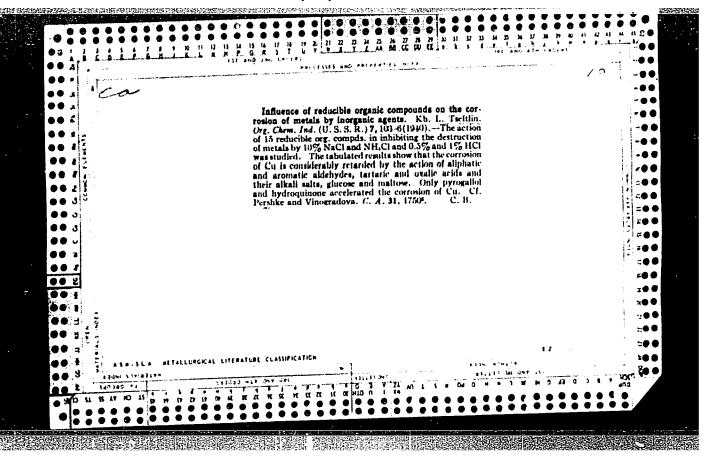


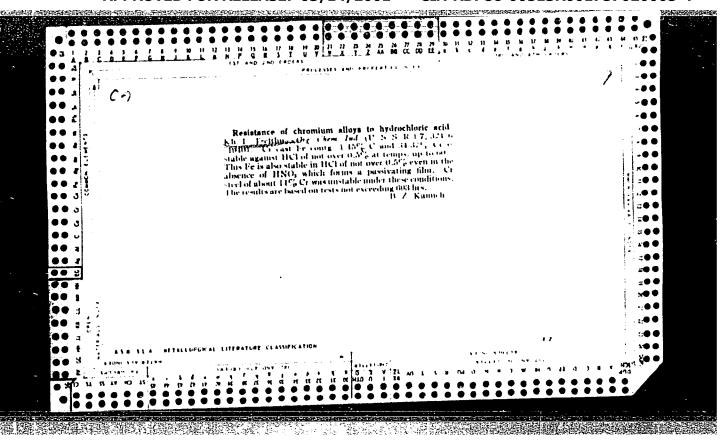


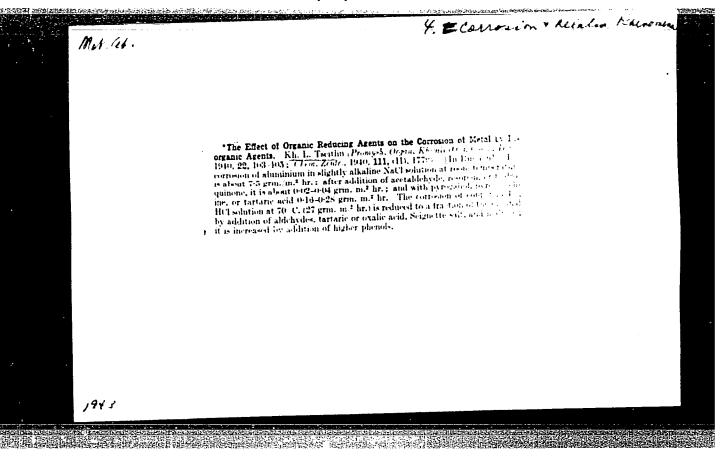


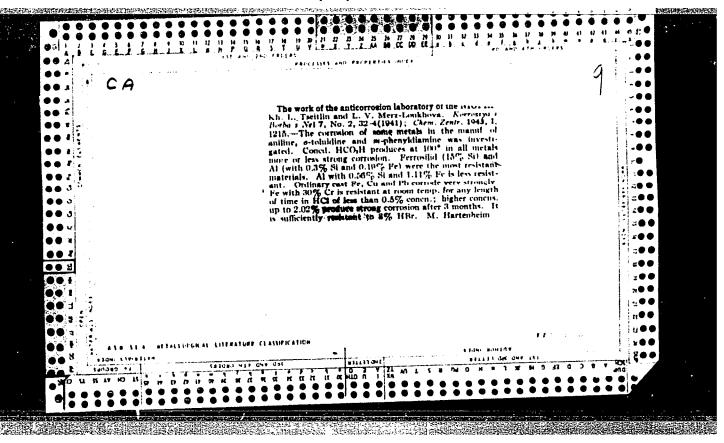


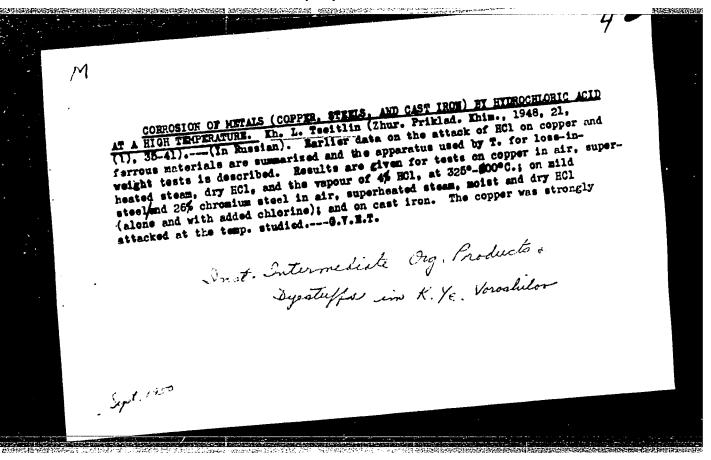












TSEYTLIN, Mh.L.

VAN, NO.E, 1950, pp 66-71.

Sci Res Inst of Organic Intermediate Products and Byes at the final session of the conference of the Commission on the Control of Corrosion of Metals, Dept Chem Sci, Acad Sci USSR, submitted a report, "The influence of Chlorides on the Corrosion of Stainless Steeks by Sulphuric Acid."

USSR/Chemistry - Corrosion

FD-973

Card 1/1

Pub. 50 - 16/19

Authors

Tseytlin, Kh. L., Kurcheninova, N. K., Babitskaya, S. M. Babakov, A. A.

Title

The corrosion of steel by hot solutions of caustic alkali under pres-

Periodical:

Khim. prom., No 7, 438-440 (54-56), Oct-Nov 1954

Abstract

In the experimental work described, determined the resistance of 7 grades of steel to corrosion by hot solutions of caustic alkali under

pressure. The type of corrosion studied leads to cracking of the

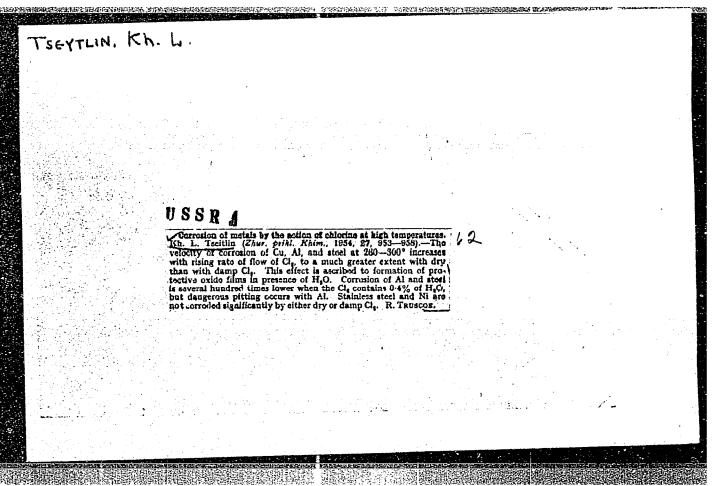
steel. Four tables.

Institution:

Institute of Organic Intermediates and Dyestuffs imeni K. Ye. Voros-

hilov.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757020005-4"



TSEYTLIN, KI, Z.

AID P - 3422

Subject

: USSR/Chemistry

Card 1/2

Pub. 152 - 7/18

Author

: Tseytlin, Kh. L.

Title

: Effect of temperature on the corrosion of metals by

chlorine

Periodical

:Zhur. prikl. khim., 28, 5, 490-496, 1955

Abstract

Experiments were carried out with aluminum, iron, carbon steel, copper, nickel, stainless steel, and lead in a current of dry chlorine (250 ml./min.) for 6 hours. At a certain temperature rapid deterioration takes place, and the temperature rises sharply. The critical temperatures are: for Al, 160°C; iron Armko, 310°C; carbon steel, 285°C; cast iron, 240°C; copper, 300°C. Nickel and lead are affected at 450°C. One table, 1 diagram, 2 photos, 9 ref., 5 Russian (1931-1954).

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Zhur. prikl. khim., 28, 5, 490-496, 1955

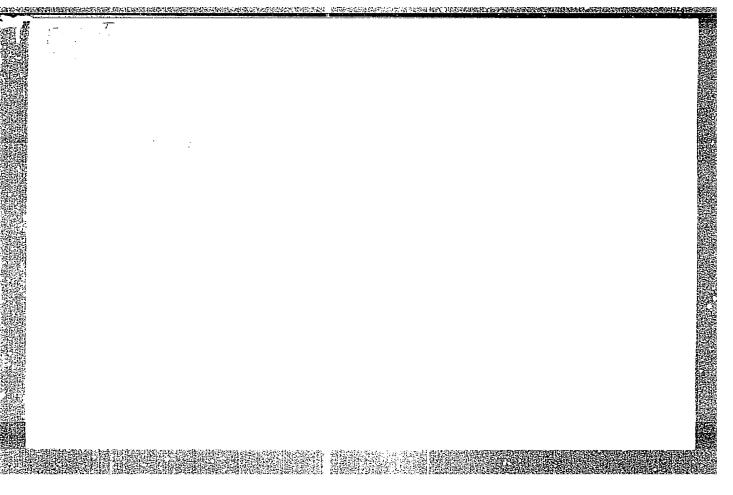
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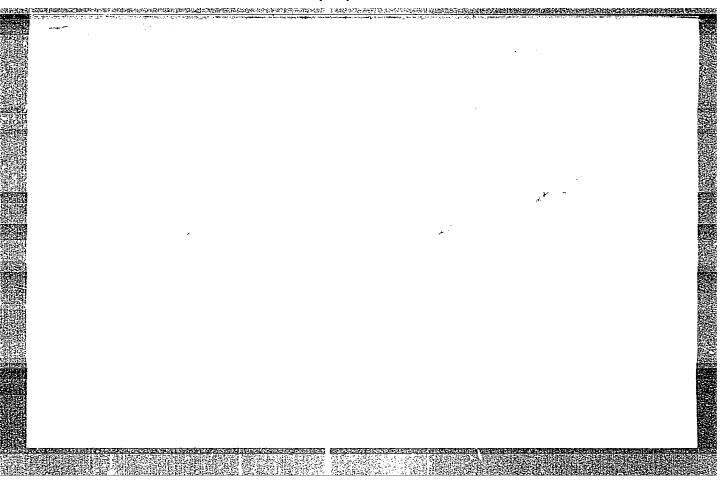
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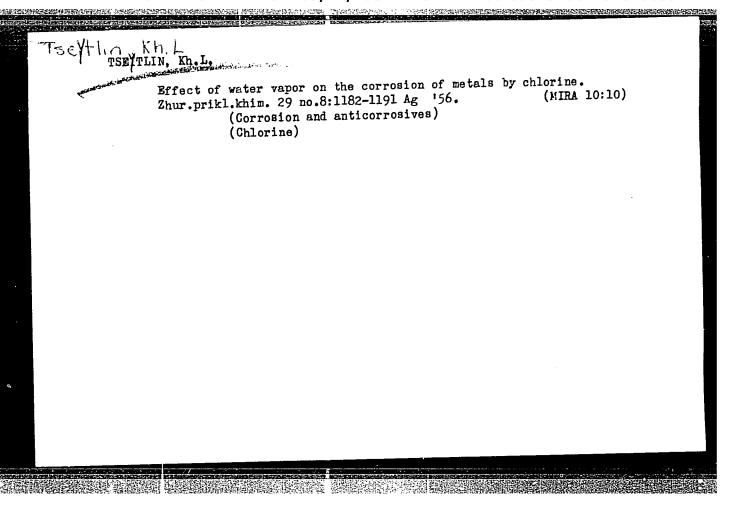
Pub. 152 - 7/18

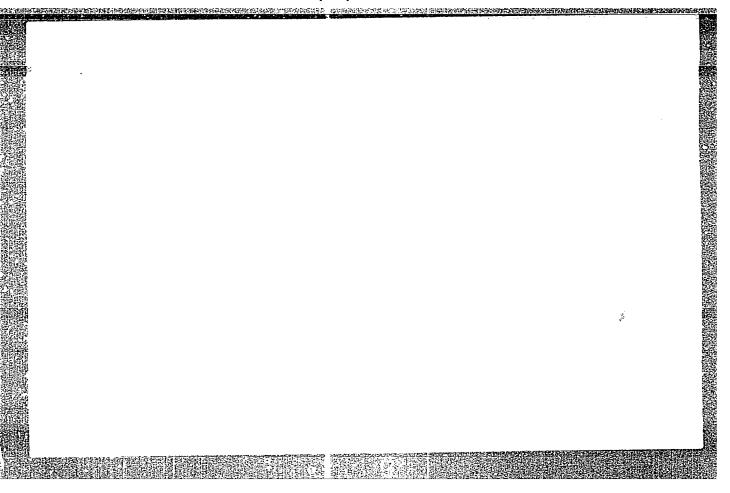
Submitted

: Ag 23, 1953









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Beutlin TSEYTLIN, Kh.L.; STRUNKIN, V.A. Effect of air concentration on the corrosion of aluminum by

chlorine at high temperatures. Zhur.prikl.khim. 30 no.12:1790-1795 (MIRA 11:1) D '57.

l.Institut organicheskikh poluproduktov i krasiteley imeni K.Ye. Voroshilova.

(Aluminum--Corrosion) (Chlorine)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757020005-4"

CIA-RDP86-00513R001757020005-4 "APPROVED FOR RELEASE: 03/14/2001

AUTHORS:

goy/32-24-7-54/65 Tseytlin, Kh. L., Sel'tser, A. S., Zemlyanitskaya, N. N., Strunkin, V. A., Merzloukhova, L. Y.

TITLE:

Corrosion Determinations in Ampoules (Korrozionnyye opredeleniya

v ampulakh)

PERIODICAL:

Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 7,

pp. 898 - 899 (USSR)

ABSTRACT:

Of late glass ampoules are used for corrosion investigations of steel; the former make it possible to carry out several experiments at the same time, which fact is especially favorable in the case of small sample quantities, and in the determinations of rare metals, as well as of expensive and dangerous reagents. In the laboratory mentioned below an apparatus was constructed on this basis, which serves for the determinations of chemically resistive, rare metals in hydrochloric acid. The apparatus consists of a heatable steel drum with a steeltube grid into which eight steel shells for the glass ampoules are put. 40 ml liquid and two samples each were put into each ampoule; then they were put in a sealed state into the apparatus which was rotated by a reducing gear. After the experiment the ampoules are broken up. Corrosion experiments with tantalum in hydrochloric acid

Card 1/2

Corrosion Determinations in Ampoules

SOV/32-24-7-54/65

or in hydrochloric acid saturated with chlorine, or in HCl with an addition of hydrogen peroxide were carried out at 100 - 110°. On this occasion a corrosion rate of less than 0,005 g/m².hour was found. Thick-walled ampoules were also used for the determinations of nickel, copper, aluminium and other metals in molten AlCl, at 200°. The experiments with this apparatus must be carried out taking into account all precautionary methods known in the technique. There are 2 figures.

ASSOCIATION:

Institut organicheskikh poluproduktov i krasiteley im.K.Ye. Voroshilova(Institute of Organic Semiproducts and Dyes imeni K.Ye.Voroshilov)

Card 2/2

TSEYTLIN, Kh.L.: RABITSKAYA, S.M.

Steel corrosion by hydrocrloric acid in spheroidal form. Zhur. prikl. khim. 31 no.1:84-89 Ja '58. (MIRA 11:4)

1. Institut organicheskikh poluprokuktov i krasitekey im. K.Ye. Voroshilova.

(Hydrochloric acid) (Steel--Corrosion)

TSEYTLIN, Kh.L.; STRUNKIN, V.A.

Effect of the dilution of chlorine with nitrogen on corrosion of metals at high temperatures. Zhur.prikl.khim. 31 no.12:1843-1849 D 158. (MIRA 12:2)

18.8300

30V/80-33-1-28/49

AUTHORS:

Tseytlin, Kh. L., Sorokin, Yv. I.

TITLE:

Effect of Chlorine on the Corrosion of Metals in

Hydrochloric Acid

PERIODICAL:

Zhurnal prikladnov khimii, 1960, Vol 33, Nr 1, pp 163-

167 (USSR)

ABSTRACT:

The effect of free chlorine (up to 0.9 g/100 ml) on the corrosion of lead, steel, silver, and EI-461 nickel-molybdenum alloy (not otherwise described in article) in hydrochloric acid of different concentrations (10 to 20%) and at different temperatures was studied. The following conclusions were made from the data obtained. Corrosion of lead, steel, silver, and EI-461 alloy in hydrochloric acid is sharply increased by free chlorine in the acid. Comparatively, the increase in the rate of corrosion is highest for EI-461 alloy and silver and lowest for steel. There is no difference in the rate of lead and steel corrosion in hydrochloric acid containing free chlorine. Both metals dissolve

Card 1/3

Effect of Chlorine on the Corrosion of Metals in Hydrochloric Acid

77519 SOV/80-33-1-28/49

vigorously. The rate of corresion in hydrochloric acid continuously saturated with chlorine increases, with the rise of temperature from 20° to 100°, for lead, steel, and silver, and decreases for the EI-461 alloy. The latter fact is explained by the high sensitivity of the alloy to the free chlorine concentration in the acid, which decreases with increasing temperature. Ag and alloy EI-461 are corrosion resistant in hydrochloric acid, which is a reducing acid. At a low acid concentration and at low temperature, lead is also only slightly corrosive in hydrochloric acid. In the presence of free Cl (Depolarizer of the cathode process) in HCl, as well as in other, similar, cases, Ag, alloy EI-461, lead, and carbon steel corrode rapidly. Experiments conducted by Kh. L. Tseytiin and S. M. Babitskaya in the authors' laboratory (see Association) show that Ti, which is usually easily passivated in oxidizing media, practically does not corrods in a hot hydrochloric

Card 2/3

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757020005-4"

Effect of Chlorine on the Corrosion of

Metals in Hydrochloric Acid

77519 SOV/80-33-1-28/49

acid containing free Cl. There are 7 figures; and 11 references, 1 U.S., 4 German, 6 Soviet. The U.S. reference is: W. G. Whitman and R. P. Russel, Ind. Eng.

Ch., 17, 348 (1925).

ASSOCIATION:

K. Ye. Voroshilov Institute of Organic Intermediates and Dyes (Institut organicheskikh poluproduktov i krasiteley

imeni K. Ye. Voroshilova)

SUBMITTED:

March 7, 1958

Card 3/3

CIA-RDP86-00513R001757020005-4" APPROVED FOR RELEASE: 03/14/2001

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Sorokin, Yu. I., Tseytlin, Kh. L. AUTHORS:

Brief Communications. Effect of Chlorine on Corrosion of TITLE:

Metals by HCl in Narrow Gaps

Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 1, pp 240-PERIODICAL:

243 (USSR)

Corrosion of steel and especially of Pb in gaps by ABSTRACT:

HCl, and also by acid containing free chlorine, depends on the factors regulating supply of HCl to the metal

surface and removal of corrosion products. HCl and chlorine concentrations in gaps are less than in original solution. Therefore, in all cases, there is less

corrosion in gaps than outside. The corrosion of steel and especially of Pb increases with increasing gap width and with stirring. The corrosion of Pb with 20% HCl in

gaps is 20 to 40 times less than that of steel. The

solubility of Pb and steel in HCl, in the presence of Card 1/2

Brief Communications. Effect of Chlorine on Corrosion of Metals by HCl in Narrow Gaps

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77535 80V/80-33-1-44/49

chlorine, increases much less in gaps than outside. The stability of Pb is 3 to 10 times greater than that of steel in thepresence of chlorine in HCl. The volume and gap corrosion of Pb and steel in HCl vapors is much less than in liquid HCl. The corrosion of Pb and steel in gaps is increased 2- to 3-fold by the presence of chlorine in HCl vapors. There is 1 table; 1 figure; and 7 references, 1 U.K., 6 Soviet. The U.K. reference is: R. B. Mears, U. R. Evans, Trans. Faraday Soc., 30, 417 (1934).

ASSOCIATION:

K. Ye. Voroshilov Institute of Organic Intermediates and Dyestuffs (Institut organicheskikh poluproduktov i krasiteley imeni K. E. Voroshilova)

SUBMITTED:

August 20, 1959 (for the second time)

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757020005-4"

s/080/60/033/04/17/045

AUTHORS:

Tseytlin, Kh.L., Revazov, Ye.K., Strunkin, V.A.

3/

TITLE:

The Effect of Cathode Polarization of Tantalum on Its Electroconductivity

PERIODICAL:

Zhurnal prikladnov khimii, 1960, Vol 33, Nr 4, pp 850 - 854

TEXT: Cathode polarization of tantalum in hydrochloric acid is accompanied by hydrogenation of the metal and leads to its cracking. In the experiments tantalum plates (with about 1% of niobium), 1 mm thick and 90 mm long and with a surface of 30 - 35 cm², were used as cathode. A graphite rod served as anode. The measurements were carried out in an oil bath and lasted 5 - 10 minutes. Under the conditions studied the electric resistance of tantalum in the ase of cathode polarization increases in direct proportion to the quantity of hydrogen absorbed. With an increase in the duration of the cathode polarization of tantalum and the current density from 0.1 to 10 A/m², the of the cathode polarization of tantalum increases and consequently also its electromount of hydrogen absorbed by tantalum increases and consequently also its electromount of hydrogen absorbed by tantalum increases and consequently also its electromount of hydrogen absorbed by tantalum increases and consequently also its electromount of hydrogen absorbed by tantalum increases and consequently also its electromount of hydrogen absorbed by tantalum increases and consequently also its electromount of hydrogen absorbed by tantalum increases considerably, and so does correspondingly the electroresistance. Cracking of tantalum starts during cathode polarization, if its

Card 1/2

8/080/60/033/04/17/045

The Effect of Cathode Polarization of Tantalum on Its Electroconductivity

specific electric resistance increases by 25 - 40% at $20\,^{\circ}\text{C}$ and by 90 - 110% at $60\,^{\circ}\text{C}$ relative to the initial value.

There are: 2 diagrams, 3 graphs and 8 references, 6 of which are Soviet and 2 German.

ASSOCIATION: Institut organicheskikh poluproduktov i krasiteley imeni K.Ye. Voroshilova (Institute of Organic Semi-Finished Products and Dyestuffs imeni K.Ye.

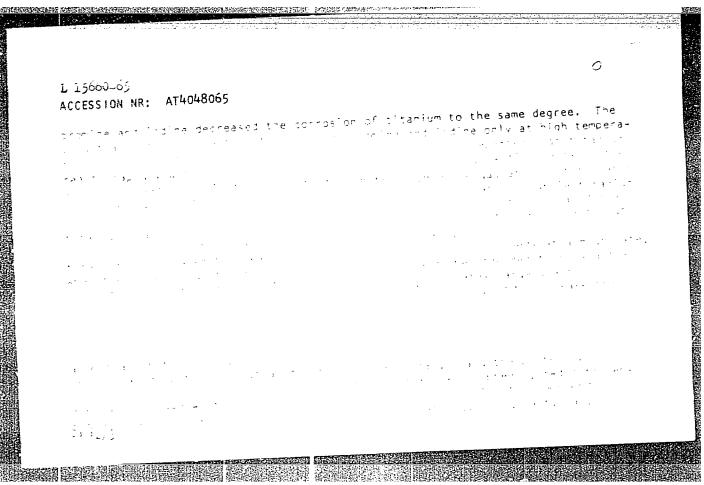
Voroshilov)

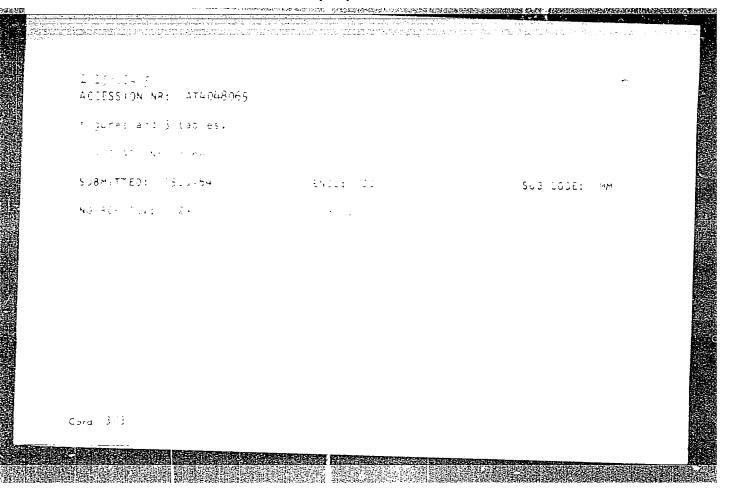
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April 22, 1959

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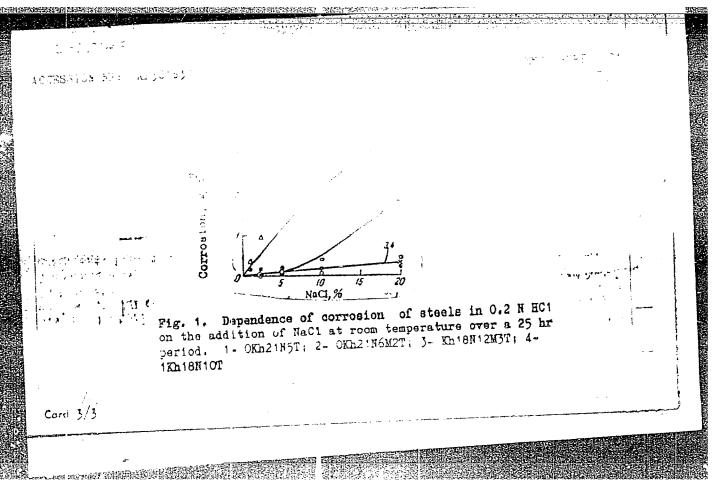
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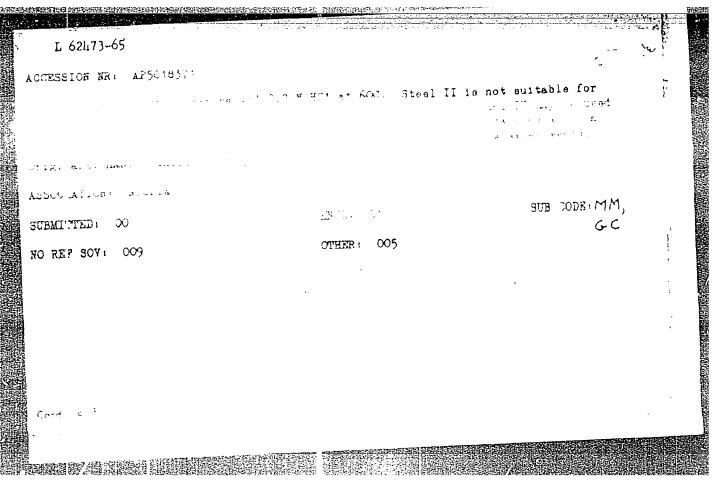
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1. Nauchno-issledovatol'skiy institut organicheskika poluproduktov
i krasiteley.

ACCESSION NR: AR4015642

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SOURCE: RZh. Khimiya, Abs. 22K24

AUTHOR: Tseytlin, Kh. L.; Strunkin, V. A.; Fayngol'ts, L. L.; Sorokin, Yu. I.; Babitskaya, S. M.; Zal'tsman, T. D.

TITLE: Chemical stability of titanium in some corrosive media

CITED SOURCE: Vestn. tekhn. i ekon. inform. N.-i. in-t tekhn.-ekon. issled. Gos. kom-ta po khimii pri Gosplane SSSR, no. 3, 1963, 30-32

TOPIC TAGS: titanium, titanium chemical stability, corrosion, corrosion resistance, titanium corrosion, halogen, halogen corrosion, chlorination, bromination

TRANSLATION: Experimental data are given on the rate of Ti corrosion in the presence of free halogens and in the halo acids and sulfuric acid containing free halogen. Areas of application of Ti in the chemical industry are pointed out. Ti is recommended as a construction material for equipment designed for chlorination in an HCl medium at concentrations up to 20% and temperatures up to 60C, in the presence of less than 3 g free Cl₂ per liter HCl. Ti tips are used on

Card 1/2

ACCESSION NR: AR4015642

thermocouple casings for the chlorination of organic compounds in 18% HCl at 60-65C, and in the dehydration of maleic acid. Ti-equipment is recommended for the bromination of organic compounds in a water medium at 0-3C (pH~1) and a rapid course of reaction. Free halogens, Na nitrite, and some other additives decrease Ti corrosion in the hydrogen halides and sulfuric acid. The protective effect of halogens decreases sharply with a temperature increase to 60-90C, and references. N. Lukashina

DATE ACQ: 07Jan64

SUB CODE: CH, ML

ENCL: 00

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757020005-4"

SOROKIN, Yu.I.; TSEYTLIN, Kh.L.

Effect of organic activating and retarding agents on the corrosion of metals by hydrochloric acid in narrow interstices. Zhur.prikl.-khim. 35 no.3:573-576 Mr '62. (MIRA 15:4)

1. Institut organicheskikh poluproduktov i krasitelej.
(Metals--Corrosion) (Inhibition (Chemistry)) (Hydrochloric acid)

SOROKIN, Yu.I.; TSEYTLIN, Kh.L.

Apparatus for determining the wear of materials in a fluidized bed. Zav.lab. 27 no.8:1044-1045 '61. (MIRA 14:7)

1. Institut organicheskikh poluproduktov i krasiteley imeni K.Ye. Voroshilova.

(Materials--Testing) (Fluidization)

35695 \$/080/62/035/003/012/024 D217/D302

18. P300

AUTHORS:

Sorokin, Yu. I. and Tseytlin, Kh. L.

TITLE:

Influence of organic activators and inhibitors on the crevice-corrosion of metals by hydrochloric acid

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 3, 1962, 573-576

TEXT: The rate of corrosion was determined by the IFKh method of the AS USSR. Discs of unsaturated graphite with slits cut in them were used to cover a steel plate which was rotated continuously in the corroding medium at 100 r.p.m. Specimens for corrosion were screwed into the crevices with graphite screws. 600 ml of pure 20% screwed into the crevices with graphite screws. 600 ml of pure 20% the corroding medium. The tests were performed on carbon steel and the corroding medium. The tests were performed on carbon steel and the corroding medium. The tests were performed on carbon steel and the corroding medium. The tests were used as organic action—nitrotoluene and p-nitrochlorobenzene were used as organic action—nitrotoluene and p-nitrochlorobenzene were used as organic action—onitrotoluene and p-nitrochlorobenzene were used as

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Influence of organic ...

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rosion of lead and steel by hydrochloric acid both in the bulk and in the crevices. The activating action of nitrocompounds in narrow crevices is considerably less than in the bulk. In the presence of activators, the rate of corrosion of metals in crevices is, therefore, less than that in the bulk. Organic inhibitors diminish the corrosion of steel by hydrochloric acid not only in the bulk but also in the crevices. The retarding action of inhibitors in narrow crevices is considerably less than in the bulk. Thus, in the presence of inhibitors, the corrosion of metals in crevices is greater than in the bulk. The above influences of organic activators and inhibitors on crevice corrosion in metals is due to the difficulty with which they are transported to the affected areas. There are 2 tables and 14 Soviet-bloc references.

ASSOCIATION:

Institut organicheskikh poluproduktov i krasiteley

(Institute of Organic Semi-Products and Dyos)

SUBMITTED:

January 30, 1961

Card 2/2

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AUTHORS:

Tseytlin, Kh.L., and Strunkin, V.A.

TITLE:

Influence of chlorine on the corrosion of timenium by

hydrochloric acid

PERIODICAL: Zhurnal prikladnoy khimii, v. 33, no. 12, 1960,

2796 - 2799

TEXT: The corrosion of titanium by various acids and oxidizers has been studied by I.I. Kornilov (Ref. 1: Khim. nauka i prom. 3,6, 803 1958), V.N. Eremenko (Ref. 5: Titan i yego splavy (Tatanium and its Alloys), Izd. AN UkrSSR, Ktyev, 1955) and others, but relatively little is known of the effect of chlorine on the stability of Ti in HCl apart from some data recently published by P.J. Gegner et al. The authors accordingly conducted a series of tests in order to obtain further information on this problem, the specific objectives being the determination of the influence of a fixed amount of free chlorine and the effects caused by varying its concentration in the HCl solution. The experimental procedure involves the Card 1/4

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Influence of chlorine on the ...

insertion of a Ti specimen (30 x 16 x 1:m) in a glass holder; the placing of the holder in a test tube provided with a reflux condenser; the addition of 150 ml of conc. HCl; and the supply of Cl, gas to the solution from a cylinder. The results confirm previous data on the high degree of Ti corrosion in HCl, especially at elevated temperatures and acid concentrations; however, free chlorine markedly retards this process. Thus, no Ti is dissolved at room temperature whatever the concentration of HCl provided the acid is continuously saturated with free chlorine (10 ml/min). Under these conditions Ti is also stable at the following temperatures and concentrations of HCl: 90° -- 5 %; 80° -- 10 %; 70° - 15 %; 60° --20 %. As regards the influence of the concentration of free chlorine on the corrosion of Ti in 20 % acid, it is shown that 0,001 g Cl₂/100 ml HCl is sufficient to bring about a 100-fold decrease in the rate of metal solution. This effect is annulled when the exposure time is increased to 25 - 50 hours. But Ti remains in a passive state for periods of 25 and 50 hours if the initial concentration of the solution is increased to 0.037 and 0.084 g Cl₂/100 ml Card 2/4

Influence of chlorage on the ...

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HCl respectively. The authors do not know of any other metal apart from Ta which resists attack by chlorinated HCl. This phenomenon is of special interest since Kh.L. Tseytlin (Ref. 7: Zh. prikl. khimii 33, 1, 160, 1960) has shown that chlorine iften accelerates the corrosion of many metals and their alloys. The authors infer from the data of M.V. Mal'tsev et al (Ref. 10: Giredment, sb. nauch. tr. 1, 481, Metallurgizdat, 1959) that the resistance of Ti to corrosion by chlorinated acid is due to the formation of an inert film of oxide. This passive layer evidently has a tendency towards splintering and exfoliation which is best prevented by continuously saturating the HCl with free chlorine, and it is concluded that such a technique helps to reduce the solubility of the film in a solution of HCl possessing a concentration of $\leq 20\%$ and a temperature of $\leq 60^\circ$. There are 2 figures and 11 references: 6 Soviet-bloc and 5 non-Soviet-bloc. The references to the English-language publica- 10 of Figure 11 of Figure 12 of Figure 13 of Figure 14, 9, 15, 1958; P.J. Gegner et al. Corrosion, 15, 7, 19, 1959.

Card 3/4

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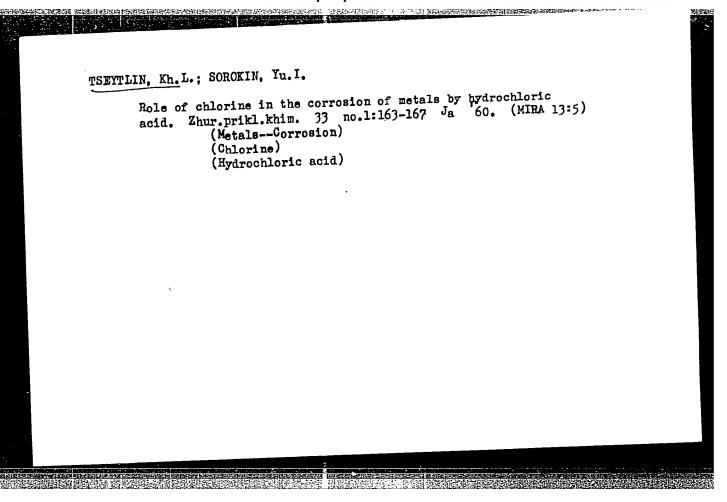
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Influence of chlorine on the ...

ASSOCIATION: Institut organicheskikh poluproduktov i krasitel'yey im. K.Ye. Voroshilova (Institute of Organic Semiproducts and Dyestuffs im. K.Ye. Voroshilov)

SUBMITTED: March 12, 1960

Card 4/4



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K.Ye. Voroshilova.
 (Metals--Corrosion) (Chlorine) (Hydrochloric acid)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757020005-4"

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APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757020005-4"

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Method of chlorine on the corrosion of titanium by hydrochloric acid. Zhur. prikl. khim. 33 no.12:2796-2799 D '60. (MIRA 14:1)

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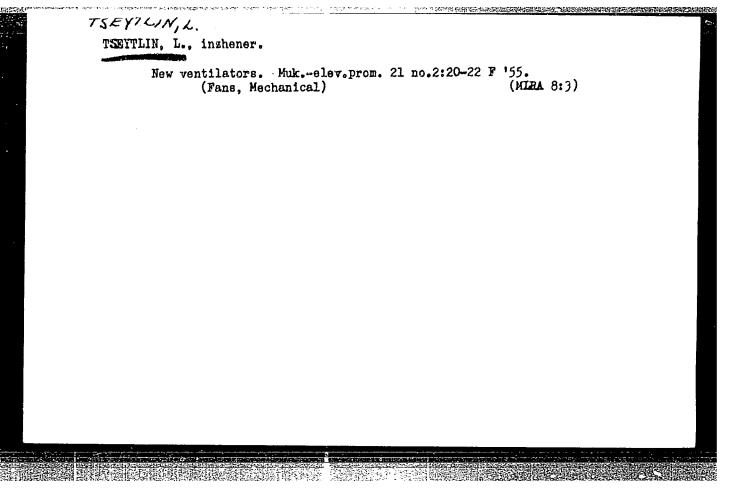
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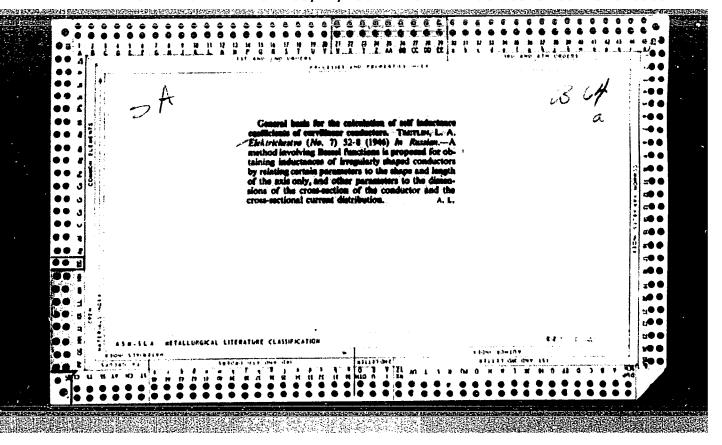
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